Integrated Waste Tracking System

S ince 1995, IWTS has proven to be a successful tool to manage life-cycle data for hazardous and radioactive wastes. It provides for paperless documentation, expedites reporting activities and facilitates waste disposition discussions between generators and waste managers.

About the System

The Integrated Waste Tracking System (IWTS) is a database created to profile characterization of waste streams and individual waste containers. It integrates data entered about a waste stream or container from generation to final disposition.

The system provides a tool to ensure waste handling requirements are completed accurately, consistently and efficiently. Once entered into the system, this data and compliance information can be accessed to fill a variety of information and reporting needs.

The system provides easy access, from any site location, for up-to-the-minute information about individual containers, storage inventories, facility limit compliance, shipping manifests, and other waste operations reports.

Major Capabilities

The system consists of four capabilities that are described as follows.

Data Storage and Retrieval

The system allows easy data entry about the physical, chemical and radiological nature of containerized wastes. It easily tracks where and when a container is moved within a storage

Using a hand-held instrument (newer devices shown right), a worker scans a barcode to quickly retrieve the history of the containerized waste.

facility. When a container's contents are treated, the treatment process used becomes part of the waste's recorded history. When a container is transported, a Uniform Hazardous Waste Manifest can be quickly generated.

Inventory and Regulatory Compliance Control

The location of individual waste containers is mapped and documented to control waste inventories. The system evaluates waste inventories against regulatory, facility permit and safety analysis limits to determine if waste handling practices are in

compliance. Periodic audits can be performed using hand-held instruments that document evidence of compliance. Flexible parameters can be entered into the system to meet the ever-changing requirements of waste management.

Quality and Security

Security protocol controls system access and records user identification to account for data entry and to prohibit tampering or accidental changes to records. Based on the type of waste data being entered into the system,

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electronic validation checks are conducted to ensure that quality data entries are made. The system also provides configuration control for data identified as quality records.

Reporting

The system provides several prepared operational reports. Reports can also be compiled from system data and format-ted in IWTS and other applications, such as Microsoft Access, to facilitate data validation and verifica-tion. Data are also retrieved and used for web-based reporting.

System Hardware

At INL, the system is a client-server application housed on one main server and several remote servers. Data can be accessed remotely using wireless hand-held devices. Bi-directional replication ensures that users access a reliable and expandable database.

For more information

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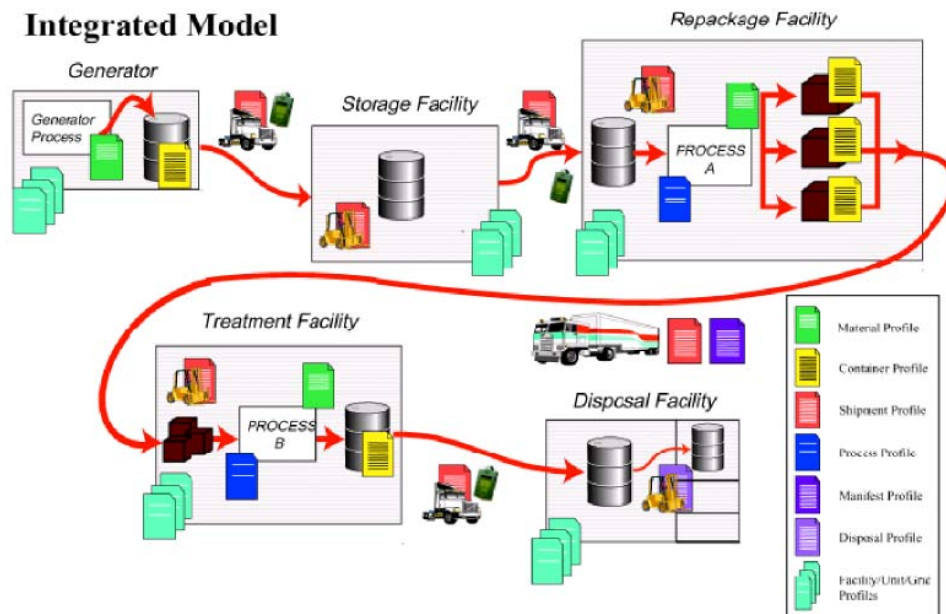
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Integrated Model

This flowchart shows where IWTS data is generated and recorded.